

207 inserting the stem portion into the cavity and placing the bioresorbable implant between [and in contact with] the first and second joint surfaces so the implant initially keeps said exposed cancellous bone surface spaced apart from the second joint surface and the face is slidably movable relative to the first joint surface; and

using the joint, including moving the face relative to the first joint surface;
whereby the cancellous bone surface initially forms fibroblast which progresses into fibrocartilage as the implant is resorbed so the fibrocartilage effectively replaces the implant during such resorption.

REMARKS:

Claims 1-6, 8-10 and 24-26 are pending.

Attached for the convenience of the Examiner is a clean "Claims Appendix" of the current wording of all pending claims.

The Office Action required applicant to update the status of application Serial No. 08/452,227. That application is abandoned. The transmittal letter dated February 25, 1997 which accompanied this FWC application includes a request to amend line 1 of the application with the relevant data concerning the parent application, including the fact that it is "now abandoned". In view thereof, applicant believes that the statement is complete. If the Examiner believes otherwise, it is requested that applicant be specifically advised how the statement needs further correction.

Claims 1-6, 24 and 26 were rejected under Section 112 for containing new subject matter with respect to "smooth" and "non-porous". Applicant could not detect the word "smooth" used in any of the claims and has cancelled the word "non-porous" from all claims where it was previously present. In addition, the previous amendment to page 10 of this application, which added "smooth" and "non-porous", has been rolled back.

In view of the foregoing, applicant requests retraction of the Section 112 and Section 132 rejections of the claims and the specification, respectively.

All pending claims, except for claims 2 and 3, were rejected for anticipation by Cohen.

Cohen discloses to resect portions of a bone, representing a hammer toe hyperflexed joint, for example, and inserting bioresorbable pins between the resected bone ends to permit granulation tissue and fibrous tissue to grow between the resected joint.

The eventual end result is that the resected tissue will be replaced by fibrous scar tissue. The resorbable pins keep the resected bone ends from touching or fusing and maintain the relative toe length. The pins stabilize the bones and maintain the length of the toe. The objective of Cohen is to achieve a painless arthrofibrosis for stability in toes.

As is illustrated in the drawings, e.g. Fig. 11, holes are drilled in the opposing resected ends of the bone and pins 20, 22, 27 and 29 (see Fig. 3) are inserted into the holes. Transverse pegs 24, 26, 28 interconnect the pins and, upon implantation, keep the opposing bone ends spaced apart while stabilizing the pins. Thus, any relative motion between the opposing bone surfaces, and in particular any relative slidable motion between them, is prevented by the pins. Cohen specifically states that the insert locates the bone sections, i.e. prevents relative lateral motions between them, and maintains the spacing between the opposing bone ends. See column 2, lines 40-44 of Cohen.

In contrast to Cohen, the present invention initially causes the formation of fibroblast which, over time, progresses into fibrocartilage by using a resorbable implant that has a head with a rounded surface which faces the joint surface portion that was previously removed to expose cancellous bone, as is described on page 7, lines 16-33 of the present application. The implant will typically be anchored to the bone with the non-resected joint surface, for example with a stem extending from the backside of the implant, while the other side of the implant forms a face which is opposite the resected joint surface. Typically, the face will be contoured to correspond to the contour of the original joint surface and, thereby, to the contour of the opposing cancellous bone surface where fibroblast and fibrocartilage will form. The implant is not anchored or in any way fixed to the bone with the resected joint surface.

As a result, slidable relative motions between the face of the implant and the resected joint surface are possible. Indeed, relative movement between the implant face and

the resected bone surface is a precondition for promoting the formation of fibroblast and fibrocartilage, and this is set forth in the application as follows (page 10, lines 31-33):

“... [W]hat appears to be necessary is that a resected surface must rub against the bioabsorbable implant to create the fibrocartilage.”

This is diametrically opposed to what is disclosed by Cohen. Cohen requires the implant to be fixed to both opposing bones to “stabilize” them. Cohen also does not utilize a face on the implant that is movable relative to the resected joint surface. Quite to the contrary, Cohen must prevent such movements in order to attain the desired stabilization and to permit the formation of fibrous tissue.

In view thereof, Cohen does not anticipate or in any manner suggest the present invention.

The above-discussed difference between the present invention and Cohen is fully recited in the amended claims. Independent claim 1 is now limited to selecting a “bioresorbable implant having a face which reconstitutes the removed portion of the first joint surface and faces the second joint surface ...” and to placing the implant between the joint surfaces “while permitting slidable motion between the face and the second joint surface”.

The other independent claims 8 and 25-26 essentially include the same limitations, although they employ somewhat different terminology.

As is discussed above, Cohen neither discloses nor in any form suggests the method steps defined in the above-quoted portion of independent claim 1, and similar limitations in the other independent claims. Accordingly, Cohen does not anticipate any of the independent claims.

Since all dependent claims, including claims 2 and 3 which were rejected over the combination of Cohen and Delcommune, include, by virtue of their dependencies, the above-discussed limitations of their parent claims, the dependent claims are also neither anticipated by nor obvious over Cohen. This observation applies equally to claims 2 and 3 because Delcommune does not disclose or in any form suggest what is missing from Cohen.

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In view of the foregoing, applicant submits that all claims are in condition for allowance, and the issuance of a formal Notice of Allowance at an early date is requested.

In view of the foregoing, applicant submits that this application is now in condition for allowance. The issuance of a formal notification to that effect at an early date is requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



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